

# ORAL HYGIENE

AUGUST 1917

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# Team-Work

upholds the spirit of organization and efficiency—in war or peace, in trade or profession.

Team-work counts in everything. It counts in the treatment of pyorrhea. . . . . THE PATIENT MUST WORK—THE DENTIST MUST WORK—THEY MUST WORK TOGETHER.

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## PYORRHEA

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# ORAL HYGIENE

## A Journal for Dentists

Volume VII

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August, 1917

### "EVERY CHILD IN ELFLAND"

**O**RAL HYGIENE WEEK, the purpose of which was to initiate a campaign of publicity and education on the care of the teeth was inaugurated in New York City, beginning Sunday, May 13th.

The above heading was the title of a playlet for which a prize was awarded to Miss Rae Melnikoff, one of the graduates of the School of Oral Hygiene, Columbia University.

The activities of the week were under the auspices of the First and Second District Dental Societies, the

Department of Education, and the Department of Health. The following schedule was carried out:

Monday—Toothbrush drills in public schools.

Tuesday—Lectures in public schools by members of the

First and Second District Dental Societies.

Wednesday — Compositions by public school pupils on the subjects of the lectures.

Thursday — Recruit Day, featuring the dental activities in connection with army preparedness.

Friday—Announcement of prize winners in various poster contests.

Saturday—Field Day, competitive toothbrush drills for prize banners in Central, Vancortlandt, and Prospect Parks.

Harry Cass, a student of the College of the City of New York, was

awarded first prize for his cartoon, "A Brush in Time Saved Mine." This was displayed in all of the surface and subway cars through the courtesy of Colgate & Co., and the Broadway Subway and Home Borough



HEALTH  
DEPT

"LIFE LINES"

No. 5

Do you know that many cases of serious illness are due to neglected teeth? A few minutes spent in brushing the teeth after each meal will save you hours of misery.

DEPARTMENT OF HEALTH, CITY OF NEW YORK

Car Advertising Company, each of whom donated one thousand car spaces. The Department of Health sent out a circular to three thousand druggists in Greater New York, pointing out the advertising possibilities of the week, and five hundred of these took the trouble to write

in and assure the Department that they would co-operate in every possible manner by making special window displays of toothbrushes, toothpastes, powders, mouth washes, and dental floss.

During a previous campaign, much space was given in the newspapers



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to promote the activities of the oral hygiene campaign. This year, however, the newspapers have been so crowded with war news that everything else has been neglected and the editors when approached were frankly pessimistic about their ability to give Oral Hygiene Week the space and attention it needed.

Unexpected and most welcome assistance was afforded by the manufacturers of dental toilet preparations, particularly the S. S. White Dental Manufacturing Company, and Colgate & Co., who gave the movement their hearty co-operation. The S. S. White Company ran an ad headed "To the Public," occupying a



four-column, ten-inch space in the daily press. With this co-operation, Oral Hygiene Week was placed on the map. A decade past the health authorities would have hesitated to accept assistance from a manufacturer of dental toilet preparations for fear that the whole affair would be capital-

ized as an advertising stunt. While, of course, the manufacturers who aided in the Oral Hygiene Week propaganda, were not actuated solely by altruistic motives, they realized that any movement which makes for wider education in the care of the mouth, not only aids the chil-

### ORAL HYGIENE WEEK

**P**ROBABLY the most interesting change in opinion in recent medicine is that with regard to the teeth. Scarcely more than a generation ago dental work was looked upon as cosmetic, but not much more. Now, however, it is recognized as representing a very important phase of preventive medicine. The feeling of physicians at the present time is that the mouth is one of the most vulnerable avenues of the body for invasion of disease.

Only those who have been following very recent medical literature will appreciate that there is a series of the most painful disabling and chronic affections, severe diseases of the nerves and joints, the so-called neuritis and arthritises, the origin of which is now traced directly to infectious processes due to carious teeth. The mouth instead of becoming freer from disease with recent developments of sanitary science has become the focus of more and more bacterial processes.

The teeth are considered so important for health that not a few rejections of recruits have been because of conditions within the oral cavity. If the announcement of the Department of Health of "Oral Hygiene Week" should do no more than call public attention to this recent development of medical knowledge with regard to the dangers of mouth infections, it will have accomplished much for the improvement of the general health of our generation.—*New York Herald.*

dren, the dental profession, but also enlarges their market.

Under the supervision of Dr. Matthew J. Carney and Dr. Albert H. Stevenson, representing the dental societies, one hundred and fifty dentists of the First and Second District gave short talks in the public schools. The following is a synopsis of their talk:

"All want to live to a good

old age.

"It is significant that there were but sixty-one persons who died in 1913 to every one hundred who died in 1878, thirty-five years ago, a saving of 44,115 lives in New York alone.

"Most of the contagious diseases find their way into the system through the mouth.

"It is common knowledge



*Even the Chinese are doing it!*

*Copyrighted by International Film Service*

that disease germs can neither thrive nor survive unless unclean conditions exist.

"Three things are necessary to sustain life—food, water and air. All food, all water and part of the air enter the body through the mouth. Hence the importance of absolute cleanliness at all times.

The effect of the most stringent pure food law is lost unless the mouth is clean. If allowed to remain in the mouth, food becomes polluted worse than any form of adulteration.

"Clean the mouth oftener and clean it better.

"Brush the teeth after every meal and the last thing at night."

The following day was devoted to compositions by the pupils on the subject of the lectures.

In a communication to the Department of Health, Dr. Ira S. Wile called attention to the value of what he termed "natural tooth brushes," meaning thereby certain foods:

"Some foods are natural toothbrushes; they mechanically scour the teeth. The hard toast, stale bread and crackers that require chewing, help to exercise the jaws and

strengthen the teeth.

"The fibrous vegetables, like spinach, dandelions, beet tops, squash, turnips, carrots, lettuce, when thoroughly chewed, serve to scrape the surfaces of the teeth and help to keep them clean.

"Cut down on the mushy, sticky, sweet foods that cling to the teeth and between them. Don't let cooking rob your teeth of their functions. Do your own chewing.

"Careful, thorough chewing increases the flow of saliva,

### SOUND ADVICE TO PARENTS

EVERY parent should see that his children follow the suggestions for teeth preservation put out by the distinguished dentists who are seeking to give practical effect to Oral Hygiene Week. A poor set of teeth is about as poor a contribution as you can make to your child's start in life. It means in most cases a weak body, a distracted mind. It unfits him. It burdens him with a handicap he will bear all his life, for teeth once seriously impaired need constant repair. It lays him open more than need be to disease attack, since bad teeth not only fail to do the appointed work of good teeth and so keep vital resistance low, but are themselves the chosen nesting places of harmful germs and centers of contamination to the blood.

With proper care and attention to diet no child need have bad teeth. Yet in this city last year nearly half the public school children examined by Health Department doctors had defective teeth—116,000 out of 275,000. If the instructions of the dentists had been followed no such widespread disability would have been possible. These instructions are simple: Furnish your child with a proper tooth brush and see that he uses it thoroughly night and morning. Clean teeth are generally sound teeth, and the way to have clean teeth is to clean them. There should be no need of saying anything so elemental. The statistics just quoted show that the need exists nevertheless. The dentists who are devoting their time and skill to the public interest are doing everything in their power to give to this week a special significance that shall serve to impress upon every one the urgent need of mouth cleaning. Their unselfish efforts should be backed up by every one for his own sake and his neighbor's.—*New York Globe*.

which is the normal tooth-wash nature has provided.

"To prevent the formation of tartar and lessen the likelihood of decay, the fruit acids are invaluable.

"Orange juice, grape juice, lemonade, apples, peaches, pears, melons are helpful at

the end of the meal, but are particularly useful before going to bed.

"Foods supplying energy, heat and tissue building material will also aid in saving the teeth if they are thus selected and used as nature's cleaners.

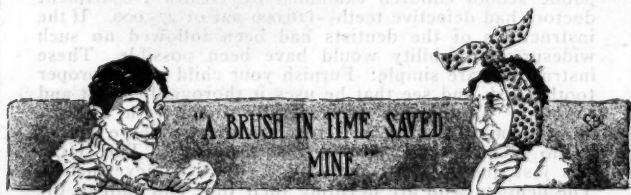
"The hygiene of the teeth consists of more than scraping them with clumps of pig bristles. Correct food habits build up and strengthen the teeth and lessen or prevent decay.

"Pick a natural toothbrush and cleanse your teeth while eating it."

The most spectacular part of the work was the competitive tooth-brush drills held in the parks of the city, and for which prizes were awarded. This excited much interest among both teachers, pupils and dentists. Only those children who had shown the

greatest proficiency were allowed to enter the contest. The awards were made on precision, posture, thoroughness, uniformity and drill. Two of the schools won banners, one a certificate of merit, and Public School No. 108, located in Mott Street, composed of Chinese boys and girls, received honorable mention.

The second Oral Hygiene Week in Greater New York was a decided success, thanks to the active co-operation of everyone concerned, and it is expected to make it an annual event.



## Clean Teeth—Good Health—Long Life

Prize Poster Competition under joint auspices of Department of Hygiene, C. C. N. Y., and Department of Health, City of New York

# LILIES OF THE MOUTH

JOHN PHILIP ERWIN, D.D.S., Perkasié, Pa.

Lesson No. 1, Primary Grade.

Prime purpose, to inspire in the young mind a desire for healthy, beautiful teeth.

Materials, two or more large white lilies. Paper flowers may well be used.

Teach: (a) As the beauty of white lilies, so is the beauty of white teeth.

(b) As spots of dirt spoil beauty of white lilies, so does dirt spoil beauty of teeth.

(c) As dirt kills white lilies, so does dirt cause teeth to die.

Length of lesson, 10 minutes.—*Author's Note.*

**A**LL the children who know the name of this flower hold up their hands. What is the name? Yes, it is a lily. Every boy and girl loves the Easter lily.

There was a little girl named Bessie who so loved the lily that she carried one on Easter wherever she went. After she was dressed in her pretty new clothes and looked sweet and clean, she would say, "Now, mamma, this is Easter day and I must not forget to carry my white lily to church and Sunday school." Then her mamma would give her such a beautiful flower.

As she walked along beside her mamma, friends smiled at her and said, "Good morning, Bessie. What a beautiful lily you have. How pretty you are this bright Easter day. Both you and the lily are very sweet." All this pleased Bessie and made her happy.

Would you, boys and girls, like to carry a white lily on Easter? And have your friends smile at you and say nice things about you?

If you remember the story of the lilies of the mouth which I am now going to tell

one day of the year, but many lilies every day of the year. That will make you even happier than Bessie, because you then can show many beautiful lilies wherever you go.

Why do we all love the lily? Why was Bessie proud to wear her flower on Easter? Because the lily is clean, white and beautiful.

When you keep your teeth clean and white, just like the lily, they will be as beautiful as these flowers. You will have lilies in your mouth.

Then, when you go to school or on errands for your mamma, and whenever you talk and smile, friends will see your lily teeth and say, "See that bright boy. His teeth are as white as the lilies." Or, if it be a girl they will say, "Look at that lovely little girl. See her clean teeth. They are so white and beautiful; they look just like Easter lilies." Won't that please you and make you feel proud?

Everybody likes to see pretty teeth. They make your whole face bright. If your teeth be clean and white like the lilies, everything about you will be sunny. The Easter lily made Bessie's dress

that they make everything else about them more beautiful.

The little boy and the little girl with lily teeth are sure to have many friends. You like to have playmates who keep their teeth clean. You like to talk with people who have a sunny face. Others want to play and talk with you if your face is bright and your teeth clean.

But the happiest part of having lily teeth is, you help others to have pretty teeth.

When the children saw Bessie and her Easter lily, they told their mammas. "Oh, mamma, Bessie carried the prettiest lily this morning we ever saw. She looked very sweet, Mamma, can't we have a lily next Easter?" They, too, wanted to carry a pretty flower.

When Willie and James and Mary and Kate see you smile and show teeth like a row of white lilies, they will go home and say, "Oh, mamma, we saw a little boy in school today with teeth as pretty as lilies, they were so clean and white. Mamma, we would like to have lily teeth in our mouths." Thus many of your playmates will learn from you the story of the lilies of the mouth.

[While teaching the next lesson (b) spot one of the lilies with drops of ink or acid. Keep the perfect flower before the class for comparison.]

When Bessie came home from church on Easter morn-

water and stand it away in a place so it will be pretty when you go walking this afternoon."

Suppose Bessie would say, "Oh, mamma, I am hungry. I must eat dinner. I am too busy to care for my lily," and would leave her flower in the dust, what would happen?

Why, it would soon wilt, become spotted and die. Then, when she would go walking she would carry such a lily. People would see her wearing pretty clothes and carrying a spotted lily. They would frown and whisper, "Look at Bessie. She is carrying a dirty flower. Isn't she a queer girl?" That would make her sad.

And so it is with the lilies of your mouth. If you do not mind your mamma when she tells you to clean your teeth, soon dirt spots will come and drive all the whiteness away and leave your teeth dark and dirty. Then, when you say "Good morning" to your teacher, she will see your dirty teeth. When you laugh with friends, or call to playmates, or talk to those about you, they also will see your spotted teeth. Of course, your teacher and friends may not tell you that your teeth are ugly, but they say so to themselves. They all would like you much more if the lilies of your mouth were like this perfect flower.

A nice little girl would be ashamed to have friends see her carry such a spotted lily on Easter. And nice children

teeth in their mouths. Neat children will keep their teeth clean and white like this perfect flower. Then friends will like you and say nice things about you.

[While teaching the last lesson (c) slowly tear edges of spotted lily until little is left but the stem. Keep the perfect flower before the class for comparison.]

If Bessie left her lily in the dust, soon the dirt spots would kill the lily. One spot would eat the edge away here, another spot would bite a piece out here, and piece after piece would go until the once beautiful lily would look like this.

When you do not clean your teeth, when you go to bed night after night with pieces of food and candy about your teeth, soon these pieces of food spot and kill your teeth just like the dirt spots killed the lily. At first you see only spots here and there about your teeth. You think they will not harm the teeth. You soon learn what a sad mistake you have made. These spots keep on growing larger and stronger until one day they bite a piece of your tooth here, another piece there and piece after piece until your lily teeth are broken and dead. Then you will be very sorry, indeed.

Suppose Bessie carried such a torn flower on Easter, what would you think? When you go to school with dark, broken teeth, you are like the little girl who would carry such an ugly flower.

You can't hide your teeth.

them. When you sing or smile, people see them. After the dirt spots have killed and broken your teeth not only you and your mamma will know it, but all your friends will see your ugly teeth.

Do you think anyone could ever make this torn flower look again like this perfect one? No, that can never be done. It is killed forever.

And so, with the lilies of your mouth. After the dirt spots have torn and broken your teeth, they can never be made like new. Their beauty is gone forever. Then you will be very sad.

Before you go to bed tonight tell your mamma the story of the lilies of the mouth. Ask her to help you have lily teeth; teeth that are clean and white. She will gladly help you to keep your teeth like this perfect flower.

*Remarks.*

Goldsmith says: "Men seldom improve when they have no other models than themselves to copy."

Children seldom improve dentally when they have no other models than themselves to copy. They must be given high ideals. This lesson supplies that very demand. It sets up a high standard of dental beauty, one which they will eagerly strive to attain.

Keep this high standard ever before the class. Occasionally greet the children with, "How many lilies do I see this morning?" or, "I am pleased to see so many lily



Mary here have beautiful teeth."

There are always pretty mouths in every class. Draw the attention of the disinterested child to them. Use the model mouth as a prod to goad along the slovenly and the careless child. Children usually covet those things praised in others.

The underlying principle involved in this lesson is, "Don't argue that a stick is crooked. Place a straight one beside it."

Don't argue that dirty teeth are ugly. Place a beautiful lily beside a dirty one. Remember, sharp contrasts cut deeply.

Avoid tiring the child by over-emphasizing. The child

mind grasps quickly simple, self-evident truths.

Guard constantly against the use of big words, words the children do not understand. Adults may survive stupendous lexicaphanicism, but children sink beneath it. Learn to use the simple language of childhood.

Few lessons of this entire course prove more effective than the lilies of the mouth. Properly presented, it makes a deep and lasting impression upon the child mind. Children never forget it. Years afterward they will speak of the good influence it exerted upon their young lives. Therefore, present it in the best manner possible.

## MOUTH SEPSIS

J. M. ANDERS, M.D., Philadelphia, Pa.

The following is from the *Journal of the A. M. A.*, and goes to show that the medical profession is waking up to the necessity of greater caution in the diagnosis of septic teeth.

**C**ONSIDERABLE attention has been bestowed on oral sepsis as an essential etiologic factor in systemic infections, and there is reliable scientific evidence in support of the tooth-root theory of this large class of diseases. The fact that chronic septic foci in teeth and elsewhere are exceedingly difficult to recognize in the majority of cases is undoubted. It is particularly instances of periapical infection or abscess that offer the greatest difficulty in this respect. Here, even a

should always be made by an expert, may fail to render reliable aid.

Daland states that the diagnosis of mouth sepsis should be made by a dentist who is specially trained for this, in which opinion I concur. The physician, however, who encounters a case of systemic infection in which the teeth are suspected should refer the patient to a competent nose and throat specialist with a view to eliminating all foci other than those which may be present in the mouth before invoking the services of

It sometimes happens that multiple foci are discoverable, in as many different organs, as the teeth, tonsils and sinuses.

Successful treatment of secondary systemic infection demands, first and foremost, the removal of the septic focus or foci on which they depend. Before reducing the masticating surface of a particular patient, however, the evidences of an existing necessity for so doing should be as clear and convincing as possible. An attempt by a competent dentist should be made to heal the morbid lesions in and about the tooth roots, since some of these are amenable to expert management, before ordering the extraction of the teeth.

Within the past six months a number of dentists have informed me that countless teeth are being removed without justification, on the advice of physicians, usually following a Roentgen examination (by amateurs in many instances). In well authenticated cases in which one or two teeth were the seat of peripheral infection, physicians have gone so far as to give emphatic directions to the effect that all of the remaining teeth be extracted. For example, one of Philadelphia's best known specialists in extraction was requested

by a physician to pull out all of a certain patient's teeth—twenty—but he courteously, though firmly, declined to do so.

It seems to me that the rapidly growing custom of sacrificing teeth, many of which are merely suspected of being septic, cannot fail to arouse the most ardent activity of dentists in opposition thereto, and must prove the ultimate chagrin of the medical profession. It would appear that an amazingly low estimate is being placed on the value of human teeth by an increasing number of physicians, who should appreciate the importance of a good masticating apparatus to the digestive function—to the maintenance of health.

I do not mean to disparage the significance of these latent chronic septic foci as a cause of secondary systemic infections or to depreciate investigations in this, comparatively speaking, new field of endeavor. The object of this letter is to utter a word of warning with a view to lessening what I believe to be an unwarrantable present-day sacrifice of the masticating surface, and to spare the medical profession the adverse criticism of the future, by a broader conception proper to the subject of oral sepsis and its management in the present.



## DUTY OF THE MEDICAL PROFESSION IN THIS WAR

We had thought to write something on this line to wake up the dental profession as to their duties in this great war, but the following editorial from the *Journal of The American Medical Association* covers the ground so thoroughly that we copy it in whole. Our medical brethren are throwing aside all private interests and financial considerations, sacrificing incomes and the result of years of labor. Can we not do as well? "Why stand ye idle all the day?"

**T**HIS is the most destructive war the world has ever experienced. Indeed, it is more than a war. It is a cataclysm in the progress of civilization. In its effects on man it is comparable to the great geologic epochs which have endangered the existence of the race and profoundly modified the development of civilization. Whatever may be the results of this titanic struggle, the trend of man's evolution must be profoundly altered. Ultimately it may result in benefit to the race; or it may lead to deterioration. Our success, with that of our allies, is essential to the welfare of the world. Defeat would mean not only disaster to ourselves, but the retrogression of all nations. We are fighting to protect our nation against a ruthless aggressor; to aid England, France and Italy, whose ideals are in harmony with our own and who up to the present have been fighting our battles; to restore desolate and ravished Belgium and Serbia; to assist Russia in her struggle for liberty, and to give freedom to the great masses of the German people themselves. The cry for help that comes to us from our allies should cause us to respond with our greatest effort, directed by our highest

intelligence, and stimulated by our most unselfish desires.

In this great struggle the medical profession has a part to play second to that of no other group of men. The medical profession has had its peculiar duties and obligations in all wars, but especially in this war. The medical service is the branch of the army whose functions are concerned almost solely with the amelioration of the horrors of war. Our European confreres have shown themselves worthy by their ready enlistments, by their high skill and intelligence and by their altruistic devotion. The high rate of medical corps fatalities testifies to this. Practically every physician in France is in the army, either with the combatants or on detail to take care of civilians; but in either case he is absolutely at the command of the military authorities. There are today practically no private practitioners in France. Every medical man is subject to order, and is working not in his own interest, but in the service of the state. In England the profession has been so reduced that at present there is only one practitioner for every 4,000 population in densely peopled districts, and one to 2,500 in the more sparsely occupied areas, and even these are now subject to

call. There the organized profession itself has sole charge of supplying the army with medical officers. This has been, and is still, being done without the necessity of a draft among physicians, except the draft which is exercised by the profession itself. Let there be no slackers among us.

Let there be no slackers. But, also, let there be none to offer themselves, provisionally, asking that they be favored in this, that or the other way. In promoting to higher ranks, the surgeon general undoubtedly will avail himself of the best information concerning each man's fitness, and in assignment to duty the same care will be exercised. An internist will not be assigned to operative work, nor will a sanitarian be expected to take the place of an ophthalmologist. Individual preference and special fitness, we may rest assured, will receive full consideration in all cases. But it must be remembered that the exigencies of the situation may demand, at times, that the medical officer sacrifice his personal and professional pride and do a service which he may consider a drudgery. This sacrifice he should be willing to make for his profession's honor and for his country's good.

A few prominent men have expressed great disinclination to be assigned to the physical examination of recruits. Yet no more important function falls to the lot

unfit man in the enlisted ranks is not only a dead weight to be carried for the present, but also a potential burden on the pension lists to be borne in the future. So far as possible, the final examination of enlisted men in the concentration camps will be made, not by individual medical officers, but by boards of experts. On these boards there should be men skilled in the recognition of surgical, circulatory, genito-urinary, dermatologic, pulmonary, neurologic, ophthalmologic and otologic defects. If an army of 1,000,000 men is to be assembled, two or three times this number may need to be examined. These examinations must be carefully, scientifically and conscientiously made. No greater honor and no greater responsibility can come to a medical man, eminent in any of the specialties, than to be placed on such a board. No such opportunity—rich in material from among our diversified population, important to the success of our cause, valuable from a scientific point of view, worthy of the high skill of the specialist—is likely to come again to the medical profession.

The war in Europe has wrought great havoc; it has destroyed millions of lives, has maimed and crippled many men, has littered the fields with shells of destruction, dismantled cities and crumbled into dust some of the most stately edifices, both

or reared by his hands. Civilization is not to be lost and the upward progress of the race is not to be permanently arrested. The potent saving factor in this great catastrophe is scientific medicine. Had disease followed these great armies in like proportion as it accompanied smaller armies in the past, the better part of civilization might have been lost. But in all the belligerent countries, medical science has stayed the pesti-

lence and coped successfully with typhoid, typhus, plague, cholera and other infections which in the past often wrought greater havoc than war and determined the fate of nations. The obligation has come to us. Let us lay aside our individual interests, forget our personal desires and professional ambitions, and with one accord proceed in the execution of the duty that lies before us.

## THE TOXIC PRODUCTS OF THE BODY AND WHAT BECOMES OF THEM

W. CLAUDE ADAMS, D.D.S., Portland, Oregon

There is a lot in this paper that isn't dentistry but not a word but is of vital importance in its practice.

**L**ET us first consider how the toxic products gain entrance into the body, where they originate, and what harmful effects result from their presence. The toxins enter our bodies with our food and drink, or are formed in our bodies through defective metabolism, or are liberated from some focus of infection, such as gums, teeth and tonsils.

Unless these poisons are counteracted or eradicated, they will inevitably manifest themselves in some form of disease in the body. It may be boils or other skin eruptions, or it may take the form of more serious diseases—*e. g.*, rheumatism endocarditis, arteriosclerosis, diabetes, etc.

If the disease is due to

rhea and eradicate the other foci of infection about the teeth, or if the tonsils are removed, thus stopping the further intake into the body of the poisonous matter, we should still be concerned about the poison that is already in the system, the result of infection of perhaps many years' standing. How are we going to relieve the diseased tissues and organs? In the majority of cases, nature steps in and uses the means which have been miraculously devised for destroying the toxins. In the more serious cases, however, it is advisable to supplement our treatment by that of a competent physician.

On the efficiency of the aforementioned glands and

depends, and whatever affects these affects our health. The thyroid is intimately and mysteriously connected with the sexual glands and with the adrenals and pituitary bodies.

In our bodies are several glands with internal secretions which control the processes of oxidation. These are:

- |                   |                      |
|-------------------|----------------------|
| 1. Thyroid gland. | 5. Pituitary bodies. |
| 2. Testicles.     | 6. Pancreas.         |
| 3. Ovaries.       | 7. Kidneys.          |
| 4. Adrenals.      |                      |

The following organs and glands protect from auto-intoxication, by counteracting the toxic products which are present in our bodies. Most important are:

- |                   |              |
|-------------------|--------------|
| 1. Thyroid gland. | 3. Adrenals. |
| 2. Testicles.     | 4. Liver.    |

Besides these are:

- |                  |                      |
|------------------|----------------------|
| 5. Kidneys.      | 8. Pituitary bodies. |
| 6. Spleen.       | 9. Parathyroids.     |
| 7. Thymus gland. |                      |

More and more are medical scientists coming to recognize the importance of the thyroid gland in maintaining the proper balance in the body. Among the agencies which are harmful to the thyroid gland are:

- |                            |                              |
|----------------------------|------------------------------|
| 1. Syphilis.               | 7. Sexual excesses.          |
| 2. Too abundant meat food. | 8. Tight collars.            |
| 3. Strong emotions.        | 9. Bad air in crowded halls. |
| 4. Alcohol.                | 10. Impure food and water.   |
| 5. Tobacco.                | 11. Frequent pregnancies.    |
| 6. Infectious diseases.    |                              |

If anything happens to one, it affects the other, and the loss or the degeneracy of any one of the ductless glands robs the body of a necessary function.

Although the adrenals secrete a minute quantity, man would die in a short time, if deprived of these organs. The thyroid and pituitary bodies are antagonistic—the thyroid diminishes and the pituitary augments blood pressure. The same relation exists between the thyroid and the adrenals.

Dr. Woods Hutchinson aptly said: "We are such stuff as ductless glands are made of, and our little life is rounded by a sheep."

Dr. Arnold Josefson, of Stockholm, and other authorities, maintain that dentition and the growth of hair in children are controlled by the glands with internal secretion. Delayed dentition is an indication that there is a deficiency of one or more of these glands, many times traceable to the hypertrophied condition of the thyroid of the mother during pregnancy. Thyroid treatment and the administration of thyroid extracts have been known to stimulate the growth of teeth and hair. Some claim that the growth of the whole bony framework of the body is governed and



the size of the individual is determined by the pituitary bodies.

Removal of the parathyroid glands in rats affects the metabolism of calcium salts of the teeth, making the enamel soft. Replacement of the glands by transplantation will cause the rehardening of the enamel of the teeth. Cretans, whose physical and mental under-development is due to thyroid insufficiency, are often found to have poor teeth.

The pancreas, by its three enzymes, brings about assimilation of proteid carbohydrates and fats. By its internal secretion, it aids in oxidation of the sugar from our starchy food. Entire degeneration of the pancreas produces diabetes. The looks of a diabetic person are often deceiving, for when the disease is in a mild form, the person frequently looks rosy and younger than he really is.

When the ductless glands are not in good working condition, there are three principal things which predispose to infection, or auto-intoxication—deficient nutrition, exposure to cold and depressed mental condition. Defective nutrition weakens the activity of the pituitary, the thyroid, the adrenals and the liver and their function of anti-toxic organs is diminished, the body resistance is lowered and infection is invited. For example, a person with a tendency to tuberculosis is running a great risk in adopting a strictly vegetarian diet. He, especially, needs milk and meat to

obtain proper nourishment.

It is, therefore, essential to observe the rules of hygiene, living up to our light on every phase of the subject, in order that we may prevent deterioration of the ductless glands. Our study should comprise hygiene of eating, of food, sleep, the lungs, the skin, the eliminating organs, the sexual glands and the mind.

After acknowledging the function the glands with internal secretions have in overcoming toxins, we must still pin our faith to the three eliminating organs in helping to rid the body of the years of accumulated poisons, namely: 1. Intestines; 2. Kidneys; 3. The skin.

1. The intestines: A free and healthy bowel movement every day is absolutely essential to good health. No person can be healthy who suffers from constipation, and yet it is astonishing to know how many otherwise intelligent people think nothing of allowing the bowels to clog up for several days at a time. The poison that is absorbed from the decomposed matter in the large intestine is most virulent and goes directly into the blood stream. After failure of the bowels to move, a dull headache may often be experienced in a few hours, and an increase in temperature may result after a day or two, and yet they wonder what causes it and forthwith begin to dose themselves on headache medicine.

In the majority of cases of constipation, a correction of the diet will prove effica-



cious, without the use of drugs, but it sometimes requires much persistence.

2. Kidneys: Almost everything we eat and drink passes through the kidneys. Then how essential it is to observe sense in our eating. All drugs taken must pass through the kidneys and are certain to have a ruinous effect if taken constantly and an inflammatory condition of the kidneys will eventually appear. Nothing is without cause; there is always a preexisting cause for every disease, usually the result of our continual neglect and abuse of these most important organs.

Prof. Muller said: "The kidneys never forget the wrong they have once suffered."

Too abundant meat diet produces uric acid, leading to kidney trouble. Meat gravies and bouillon of meat extracts count the same as meat and should not be indulged in oftener than once a day. According to authorities, one teaspoon of sugar at each meal is sufficient and no sugar for diabetics is allowed.

As has been said, the function of the ductless glands is to counteract the toxins in our systems, but these glands may not be able to completely do their work, or the toxins may be produced in such large quantities that the glands cannot overcome them, in which case, the remainder of the poisons will be thrown on the eliminating organs to be disposed of. The skin, through the pores, can eliminate only so much, and if the intestines

are not working perfectly, the bulk of the elimination will fall to the kidneys.

3. The Skin: Now the skin, the third eliminating organ, comes to the assistance of the overworked kidneys to lighten their work. The skin and kidneys are partners, sometimes called Kidney & Co. By sweating, the impurities in the system and quantities of common salt are given off through the sudorific glands of the skin.

As a proof of the intimate relation existing between the skin and kidneys, the quantity of urine secreted by the kidneys is more in cold weather than in hot weather, when the body is perspiring freely.

Respiration is thought to take place through the skin just as truly as through the lungs, proof of which is given in the instance of the little boy who died suddenly after having had his entire body painted over with gold leaf to represent an angel in a papal procession of Leo XIII. Animals, if varnished all over the skin, quickly succumb, undoubtedly due to checking the skin respiration.

Free perspiration gives off poisons, 1-200 as much carbonic acid gas as the lungs, creatin, acetic acid, urea, uric acid, salt, lactic acid and fatty products.

Frequent Bathing: Baths cause an increase of the water-secreting activity of the kidneys and in the elimination of nitrogenous end-products and salt. Strasser and Blumenkranz, by experiments, showed after hot baths taken

a long time, there was twice the usual amount of urine, and an increase of from 50 to 100 per cent of nitrogenous end-products of metabolism and from 100 to 200 per cent of salt.

The processes of oxidation can be increased from 50 to 100 to 200 per cent by cold baths and by hot from 50 to 100 per cent. Tests have shown that the amount of nitrogen in the urine was two grammes less on days when sweating treatment was administered, showing how well the skin eliminated the poison.

If perspiration is left on the body or on the underwear, the body reabsorbes part of the poisonous matter, which is one argument for frequent baths and change of underwear. The vapor given off by the skin either dries or condenses in the form of perspiration.

During the Russo-Jap war the Japanese soldiers were ordered to bathe every morning and change to clean underwear, so that in case they were shot and the bullet carried part of their clothing into the wound, everything might be as aseptic as possible.

Loose and porous clothing next to the skin with a layer of air between the garment and the body are strongly recommended. A stiff, dry flesh brush used all over the body till the skin is red is an excellent means of removing the dead cuticle and keeping the pores open.

The Value of Sleep in Ridding the Body of Toxic Products: Bunge says: "A man

can live for a month without food, but he must succumb after only a few days if he fails to sleep." That sleeplessness leads to death has been proven by experiments made on dogs by a French woman. Dogs three or four months old were deprived of sleep for some time and their temperatures fell four or five degrees. The number of red corpuscles decreased from 5,000,000 to 2,000,000 per cubic centimeter and the brain showed important changes. The dogs in every instance died.

By constant contraction of the muscles during the day toxic products are accumulated in them and sleep is nothing more than a manifestation of the accumulation of these toxins in the body. Then during sleep, the poisons accumulated during the day are carried off. Tests have been made on animals where they were made to go through fatiguing movements for several hours and extracts from the muscles used were injected into other animals. They all showed symptoms of great fatigue and some died in twenty to twenty-four hours. Urine specimen taken in the night is found charged with toxins, as is proven when injected into animals. Repair of the body, then, takes place during sleep.

Over-eating and under-sleeping should be avoided, also eating at irregular hours or when worried or angry. The average man eats twice as much as is necessary to sustain life and about one-third more than is really good for

him. From an economic standpoint, this should appeal to all, especially at this time in our nation's history, when more is being said about needless waste and greater stress is being laid on conservation of food.

When a man reaches the point that he realizes that it is for his own benefit to eat sparingly and of plain but wholesome food, it will cease to be any act of self-denial for him to abstain from the luxuries to which he has been accustomed. It will be necessary for him to thoroughly masticate the coarser and plainer foods in order for him to be able to assimilate them. This diet, if well-balanced, will be amply sufficient to supply the body with the required heat and energy and there will be no overloading and the consequent tax on the various organs in eliminating the extra and needless waste matter.

The crime of the age is over-eating, but few realize that it means the actual shortening of their lives. Arteriosclerosis is aggravated by heavy diet, especially foods producing flatulence. Some of the causes of this rapidly increasing disease are pyorrhea and other foci of infection around teeth and tonsils, infectious diseases, lead, alcohol and tobacco. Dr. Osler says: "We are just as old as our arteries."

The tonicity of the system and the various glands and or-

gans in it is a matter which is largely within the control of the individual. His health is determined by the manner in which he observes the rules of hygiene, for ordinarily, disease is brought on by ourselves when the laws of nature are transgressed. I, myself, this very minute, am violating one of the essentials of good health in sitting up till the wee small hours to prepare this paper for print.

We, as dentists, need to make a study of hygiene and it is our duty to give our patients the benefit of our investigations. Teaching how to live comes as much in our realm as it does in the realm of the physician. After we have done our part, we will have to depend on the good sense used by the patient in this hygienic mode of living and the food eaten to tone up the ductless glands and the eliminating organs in order that they may function properly and rid the body of the effects of mouth infection. Nature's laboratory is constantly manufacturing antitoxins with which to combat disease, but sometimes it is advisable to artificially supplement these secretions by the use of thyroid and other extracts, but they should be administered under the direction of a competent physician, for there is great danger in overestimating the glands.—*Northwestern Journal of Dentistry.*

## GERMANY IN WAR TIME

WALTER W. SAGE, D.D.S.

We are indebted to *The Dental Forum* for the following which was written shortly after the author's return from Berlin, where he was associated in practice with the Kaiser's dentist. It does not touch on recent events.

**S**INCE the war started, few close-up views of the Kaiser have been presented by the horde of writers taking the world war as a theme. This is due, primarily, to the fact that few people ever get in touch with the Emperor when he is relaxed. Those who do come in contact with him have little to say, they being chiefly members of his household, military advisors and attendants.

I treated the Emperor several times. He usually came to my associate's offices in Berlin, but the last time I saw him I was summoned to the palace at Potsdam. One of the many secretaries the Emperor has at his disposal called up and said he would like to have me attend the Kaiser at 10 o'clock the following morning. So early on the appointment day I packed my instruments and, with a foot-power dental engine under my arm, took a train for Potsdam. At the Potsdam station a royal carriage met me and I swung out to the palace in style. I was shown to a large room on the second floor of the imperial quarters. It must have been a wardrobe of some sort because there were uniforms of all sorts covering the walls. A heavy chair with a reclining back was placed at my

disposal to serve as a dentist's chair. After arranging my instruments I stepped into an ante-chamber to await the command of whoever had his eye upon me.

Promptly at 10 o'clock—the Kaiser is always on the dot in keeping appointments—a functionary informed me that the Emperor awaited my coming. As I crossed the threshold, the Kaiser saw me. He shifted his head on the chair back and said: 'Hello, there, Sage.' The Kaiser speaks perfect English, far better than that we hear, as a rule, in this country.

As far as I could observe there were no signs of gloom or a bent back which might be traced to the effects of the European war. The Kaiser has grown quite gray during the last few years, but he is very active, moves around with snap and is what Americans would call "a live wire." He joked about the high price of the American dollar measured in marks.

"Well, I see that the dollar is going up every day. That must make Americans happy," the Kaiser said with a smile. He also referred to the progress which German dentists are making and seemed to think they would soon equal the skill which Americans have shown in this profession.

At one stage of the treat-

ment the Empress came into the room to see how things were getting along. She inquired, in English, if the pain were unbearable and the Kaiser said it was pretty bad, but he guessed he could stand it.

Perhaps you would like to know the cause of my visit. Well, the Kaiser said he was over in France eating grouse when he bit a piece of shot which was imbedded in the meat served him. The shot broke off a piece of tooth and he wanted me to put another piece on for him. He smiled at the thought of biting a piece of shot.

In regard to the present conditions in Berlin all the food, clothing and other necessities are regulated in respect to sale by the police department, which is today just as efficient and well set up as it was before the war. Practically everything is sold according to the card system. The cards are, in reality, a series of coupons which calls for so much a week. If you use all your coupons on the first day of the week you don't get any more until the week is up. This, of course, absolutely regulates supply and prices. The police issue cards and collect the coupons and check up the whole business of Berlin every day.

When I left Berlin, sixty grammes of butter was a week's allotment. That means just enough butter to spread one roll each day in the week. Soap was sold at the rate of one cake a month for an inhabitant. Two eggs were

supposed to last three weeks.

If they didn't you were refused more until the expiration of that time. There is absolutely no lard in the country, and fats, such as bacon and pork, are very scarce. Sorghum is served with coffee at even the leading hotels. There are now two days in the week on which the eating of meat is forbidden. A man has to prove that he needs a suit of clothes very badly before he is allowed to buy one. A while ago the government found that a department store was overcharging its customers and the police closed it up.

Getting across the German frontier was a tedious task. You must go to the police and get photographed, for one thing, and four prints are made from the plate. One of them is sent to the authorities at the place you designated as the one where you wish to pass out of the country. The police attend to only forty cases a day, and as the demand for passes is great you must get up very early in the morning if you expect to be accommodated. I made four visits to the precinct headquarters before my case was passed upon. I went to the station at 6:30 o'clock on the morning of the fourth day and got a number.

When you arrive at the frontier the photograph you carry is compared with the one forwarded to the border by the police. If the pictures check up you are allowed to pass, after much signing of names and data gathering.

Such formality applies not only to one who is going to sail for America. It applies to every one who seeks to cross the frontier in either direction. As a consequence, Germany knows every minute of the day exactly where she stands in regard to men, women and children as well as in regard to supplies for meeting their wants.

Wounded soldiers are just beginning to be seen on the streets of Berlin, although the war is now well into its third year. Soldiers preparing for the front, march up and down the streets of the capital every little while. They range in age from 17 to 45. When the war started, conversations over the tele-

phone were limited to the German language. Lately this rule has been slackened and English can be used without central shutting you off.

Although women are running the street cars and digging the new subways, there does not seem to be a scarcity of men in the city. The orchestras, numerous there as before the war, all seem to have their full quota of men. Theatres, restaurants and the big hotels are running full blast and a general air of merriment prevails. The government asked some time ago that mourning garb be dispensed with and little of it is seen. Dancing is about the only amusement which is not permitted.

## A FEW EXPERIENCES

G. E. M., Buffalo, N. Y.

**F**ROM April to January, 1916, 15,920 pupils of the Buffalo public schools were examined with the following results: Teeth decayed, boys, 18,948; girls, 20,645.

Slips noting these defects were sent home to the parents, and many amusing replies were received, which clearly show we must start with the younger generation for our dental education.

"Gentlemen, there is nine of us in our family and seven of us have decayed teeth the youngest is 6 years old, the oldest is 50 years my income is 56 cents a day per head for which I must feed and cloth

them all please help us out in this case and fix E—'s teeth and I will be thankful to you."

"Mrs. — had a small tooth pulled, on the right sight."

"I have send him to the dentist by he said he could not pull them off because the teeth might spoil."

"My mother sad nt."

"Irene expec to have taken car Feb. 2. Dencies is sow bisy he go sow May children head of them."

"I will tent to Josephine teeth next week."

"D—M— teeth are good and not can afort it because we'r to much in the family."



"Carrie pulled tooth off."  
"his muth is all right live long."

"R—D—has been to the dentist 2 months ago and he said that her teeth couldn't get any cleaner and that them lit-the holes would soon grow out."

"He will have his teech all ride."

"I never could have W—'s teeth pull out they are too brital you know his gum is affected that is what affect his speech."

"To whom it may concern I think I am capable of taking care of my own child with out any grafting of students and dentists will take car of teeth when I see fit."

"If dental inspection will educate children to take greater interest in their teeth it is a good work. But I positively refuse to take orders from any individual or organization regarding either dental or medical attention for my family. I certainly have a more sincere interest in the welfare than an outsider." (This man is in the dental supply business in this city.)

"I do not approve of F— having filling between her front teeth."

"R— teeth are taken care of and watched by Dr. —"

and he knows that the cavities are open and left then for reasons best known to himself."

"I will take R— to the dentist efner Xams please oblige her Mother."

"If his teeth are bad why do you not fix them while you are at it."

"this is a matter thet is none of the citys business. Please forget it."

"I am very sorry to say that i haven't the means to get E— Teeth filled that are decayed they are her first teeth from her mother."

"E— theeth 3 of then been filed 3 tine bot the filling hase kan out. agan becose omly Rober filling. 2 is baby theet ome is seckenteeth 18m then to have filled agan as soon ase Dencenis gat back I wat for him my omeself E— I was to Denice Wensday Mooring he way sow I see His soon as Denice come back."

"We had G— teeth all filled last year and all her first teeth. So the Dentist said not to have them filled again as It would spoil her second ones."

Best of all—"Will attend to M— teeth in fact that tooth is being treated now. Thanks very much to Dental Inspection."





## COLORADO IN LINE

REA P. McGEE, M.D., D.D.S., Denver, Col.

**T**HE Colorado Fuel & Iron Company has added a dental division to its medical department, so as to provide care for the teeth of the school children in its mining camps, beginning with the lower grades. The company is also co-operating with the Board of Education of the City of Pueblo to provide similar services for the children of the South Side district, in which about fifty per cent of the pupils are children of the steel workers.

Dr. W. A. Brierley has been employed as Chief Dental Surgeon. The plan of work outlined for the camps embraces the practice of preventive dentistry, adopted from the thorough work being done in the public schools of Bridgeport, Conn., under the direction of Dr. A. C. Fones. Under this system Dental Hygienists clean the teeth of the children two to four times a year while the child is going from the first to the sixth grades in school. Tooth brushes and powders are furnished and tooth brush drills are held, and every effort made to instill habits of mouth hygiene.

In the camps Dr. Brierley will be assisted by Dr. Edward Carter and Miss Ellen Johnson and Miss Phebe Boss, Dental Hygienists.

Dr. Leonard T. Walsh will have charge of the work in the Pueblo schools and have

as assistants two hygienists from Bridgeport, Conn. A reparative clinic will be installed in the Central High School.

The C. F. & I. Bulletin of January 31st says:

"The oculist engaged for the work in the company's mining camps is Dr. Eldridge Adams. Dr. Adams, after his graduation from Rush Medical College, Chicago, was engaged for some time in industrial, medical and surgical practice in the copper country of Michigan. Later he returned to Chicago to take post-graduate and other specialized work in surgery of the eye, ear, nose and throat."

Dr. W. A. Brierley has been employed as Chief Dental Surgeon. He is a graduate of the Colorado College of Dental Surgery, and has been in active practice in Denver for nineteen years. He is a former president of the Colorado State Dental Association.

The Colorado laws require the school authorities to make examination of pupils and report to the parents any serious defects, especially of the eyes or teeth. The Colorado Fuel & Iron Company recently decided, in order to make this work as effective as possible in its mining communities, to go beyond the legal requirements by co-operating with the school authorities through its medical department, and

making provision not only for making the required inspections, but also for having the necessary work done. Arrangements are being made with the boards of education to have the inspection work done during school hours, as a part of the regular educational course. The dentist and

oculist, traveling separately, will visit all the camps in turn, and it is expected that they will reach each mine about twice a year. Before the first visits notices to parents will be distributed in the camps, explaining the work of the specialists and requesting their co-operation.

## THE SUBJECT OF ROOT CANALS

W. B. AMY, D.D.S., Toronto, Ontario

The following is a fragmentary report of a series of three interesting and instructive lectures delivered by Dr. M. L. Rhein before the Semi-Centennial Convention of the Ontario Dental Society in Toronto, May 21-26, 1917, and is reprinted from *Oral Health*.

**T**HE value of many discoveries is greatly reduced by unbalanced minds, bringing them into disrepute and ridicule. We are confronted today with the same danger because so many men with small minds are making deductions that all diseases arise from infections at the ends of the roots of teeth.

Twenty years ago I made the statement that many cases of endocarditis came from dental lesions. This statement, of course, was ridiculed, but we find today that my belief was correct, and to a greater degree than ever I imagined. My own candid opinion is, that if it were not for the immunity provided within our bodies, the dental work which has been performed for the last forty years would have killed more people than the present war.

Let me tell you right here, though, that I at no time

made the statement, nor even intimated, that lack of knowledge in dental work was the cause of all these diseases, but, I do say, that lack of knowledge, together with the faulty technique of filling root canals, has been, and is, the cause of many diseases which in former times has been blamed on other parts of the body.

Many believe that there can be no infection without pus, but Rosenow, one of the greatest bacteriologists on the North American continent today, has proven that toxins existing at the end of the roots in granulomas or blind abscesses, where no pus is present, are possibly the most dangerous forms of periapical infections.

In the suppurative abscess there is a natural defence in the alimentary tract, but in blind abscesses we almost invariably find streptococcus viridans, a low form of the streptococcus group, not capa-

ble of even producing an inflammation. They have so little virility, and yet some of the worst cases of toxemia have been traced to this source when the patient has not had the least local discomfort. These morphological tumors forming around such roots are possibly filled with this low grade streptococcus, producing it is true, at times, some toxins that are pus producers, but they remain in and are carried by the circulatory system throughout the body, being held by the part that presents the least immunity to that species of bacteria. These bacteria will here make their nest and trouble will soon follow, or it may be not for years.

It is important that devitalized teeth today, should be handled in such a scientific manner that there shall be no danger of reinfection forever. Fifteen years ago I was criticized as ridiculously slow in my root canal work. I then thought I was doing good work, but since then, I have, I believe, replaced 25 per cent. of my root canal fillings, having found them faulty and some with infection. My present technique is the result of constant evolution, and today, I find that I take three or four times as long as I then did to fill root canals.

One thing I wish to impress on you is: A man who takes the platform and cries "too much time" is insincere and dishonest, or he does not understand what is expected of him. Most teeth, even

with anastomoses can be cleared out and filled. There are probably 10 per cent. that should be extracted, and let me tell you, that in no case has a dentist any right to retain a tooth in the mouth of a patient when he knows that the root has not, and cannot be, properly filled. No dentist should keep as a patient any person who will retain an infected tooth against his right and proper judgment.

There are three essentials for the proper filling of root canals:

1. It is necessary that every particle of pulp tissue should be removed. Every particle! You must go through the foramina of every one of them and must know that you go through by examination with the X-ray.

2. It is necessary that every vestige of infection in peri-apical areas be removed.

3. It is necessary that the root canal be hermetically sealed in such a way that it cannot be reinfected.

There should be insulation or escapsulation of root ends so that the osteoclasts and micro-organisms cannot work on these denuded areas. This is not possible in all cases, but the longer we work the better it can be accomplished.

There are two ideals for which I work:

1. The advancement of our profession for the welfare of humanity.

2. The advancement of our particular speciality to such a position that it will cope with this subject in such a way as to elicit the admira-

tion of the professions and the laity. We, as dentists, are heirs to a heritage of which we have not yet taken possession.

Bacteria hunt for nutrition as other bodies do, and their nutrition is dead tissue. They build their nest possibly at the end of the root and in time cause the destruction of an area of the alveolus by virtue of superior force. Until the structure is restored that tooth has not been properly treated, in fact is a failure that must be rectified or eradicated.

One of the misfortunes of dentistry is the pride some men have in aesthetics without regard to the usefulness of the work to the patient. While I do not wish to detract in the least from the beauty of the aesthetic, I must emphasize the fact that the work must be of the greatest possible use to the patient and not a source of future trouble.

There is among our dentists a lack of attention to diagnosis. He wishes to get to work too soon, thinking that he should be working to be earning his fee. Do not do things without knowing what you are doing them for.

Peri-cemental abscesses and apical abscesses are often wrongly diagnosed as pyorrhea. Use your X-ray frequently. The time has gone by when a dentist can get the best results without this great helpmate of the dentist.

There is an immense amount of work still to be done to find out the diseases

that attack the pulp. I am opposed to placing crowns over vital teeth, on account of the disease of the pulp, which invariably follows. As a clinical factor we are more acquainted with the disease known as calcific degeneration or pulp nodules.

Every time there is an inquiry to the tooth it is felt by the pulp, the heart of the tooth, and some manifestations occur, such as calcific deposits, peri-apical irritations, etc.

Our greatest difficulty in accepting the technique for opening into root canals, is an apparently inherited tendency to conserve as much of the crown of the tooth as possible. Do not value conservation in the face of danger. We must reach the ends of roots and sacrifice crowns to do so.

Use roentgenograms as a guide for the study of the roots you are working on. What is the use of putting on a beautiful crown if the end of the root is diseased and a menace to the health of your patient in the form of arthritis, endocarditis, etc.

My technique for removal of root canal contents:

Having opened up the pulp cavity so that all the root canals are as accessible as possible, get rid of pulp contents by instrumentation. Remove by use of barbed broaches. I have found Adlers, manufactured by Twentieth Century Co., the most useful, as they are almost unbreakable and are impervious to acids. Be careful

and do not force broaches too much, as you will clog up canal. When more accessible parts have been cleaned up next use what are called Apexographers, put up by the same company, on the ends of which are a couple of small barbs, which enable us to carry small particles of sodium-potassium into the canals, which, by virtue of its great affinity for water, destroys the remaining pulp tissue. When we have once reached the end of the canal in this way, we can enlarge by means of Kerr's files or any instruments of a similar nature. Sometimes we cannot get wholly to the end of the root because of obstruction of root by deposition of bone, in that case use Gates Glidden drills or reamers.

Calcific deposits in root canal can be gradually worked around by Rhein's picks with sodium-potassium and a large amount of patience. You may also use sulphuric acid if you so prefer.

When we have penetrated as far into the canals as we think possible, insert gold diagnostic wires, and check up by means of the X-ray. The time is past when we can say that a pulp canal filling is not really good, but it is as good as she can afford. Be honest with yourselves—it is either perfect or imperfect.

We will now discuss the destruction of a granuloma or tumor on the root.

As early as 1897 I presented a report on ionization for the removal of pathogenic

tissue at the end of roots. Since then I have increased the use of ionization, because I am convinced that thereby we can remove these granulomas and make the tooth healthy, except in cases where the root is necrosed, where both ionization and apsectomy can be employed. In ionization you must guard against failures by remembering that the removal of large tumors is not as easy as small ones, and that their removal depends on the time and power used. The time varies from five minutes with one milliamper of current to one hour with one milliamper. Raise milliamper as high as patient can stand.

I place the anode in the root canal after it has been opened right through and the cathode as near the anode as possible—I use a wet sponge on cheek. Place zinc chloride or some compound of zinc with a physiologic salt solution in root canal.

After ionization I have my assistant bring all the necessary root canal instruments cotton points, gauze, etc., from a Pentz electric sterilizer. Now with a wash composed of 2 ounces of bichloride of mercury and  $1\frac{3}{4}$  grams of Marchand's hydrogen peroxide I wash out my canals. The sublimate seals the ends of tubuli and prevents reinfection therefrom. If any moisture is left in canal, I use sterilized cotton points and hot air.

Technique of filling root canals:

With broach carrying small

amount of cotton dipped in chloroform wash out canal to dehydrate. Now, with pink base plate gutta percha, dissolved in chloroform to a consistency thin as water, proceed to fill the root canal by dipping a broach with small amount of cotton thereon into the chlora-percha and carrying to canal, working it into place by pistonlike action. This is bound to penetrate tubules and foramina. Select gutta percha points such as S. S. W. Co. put up, the same diameter from end to end, sizes 1 to 12, sterilize in 10 per cent formalin solution and place on sterilized Johnson napkins. Introduce a small section of the size that will go to end of root canal you wish to fill, and using small canal plugger, pack well. Moisten canal every once in a while with chloroform and add other sections of larger gutta percha points that will approximately fit the canal and pack, pack, pack, until the canal filling is one homogeneous mass. Cover this with oxychloride of zinc cement. This technique applies to all root canals. Do not use heat in packing gutta percha. Many times the patient will complain of soreness of the tooth from a few hours to two or three days. There is no cause for worry

if the work has been done aseptically.

Application of high frequency current will help to relieve this pain.

A word on medications: The technique of root canal filling is based on the principles of surgery, and I may say, that I have not used medicaments for root canals for twenty years.

Use of X-ray:

Focus cathode as closely as possible on the tooth in which we are interested. Roentgenograms that are taken too fast do not show enough detail. I find that four milliamperes of current used for twenty seconds, gives the most satisfactory results. In aperture which should be made as small as possible, I stuff cotton to exclude all but the direct rays.

Finally, do not place too much reliance on the roentgenograms alone, but using your clinical history therewith, generally speaking you have a good basis on which to work.

All of Dr. Rhein's lectures were profusely illustrated with slides, conclusively demonstrating that his stated facts were not theories of his fertile brain, but actualities occurring each day in his own practice.





## CORRESPONDENCE

*Editor Oral Hygiene:*

Your editorial, "Books—Old and New," appearing in the May issue of *Oral Hygiene*, is interesting but the statement that you know of but two dental schools that have worthy collections would indicate that you are ignorant of the facts. In ten of the schools of this country there are collections almost as complete, some of them doubtless more so, than the one which you cite as being the most extensive collection in the world. In addition to this, there are several public libraries with fine collections and a long list of individual libraries that are far from being insignificant.

Yours very truly,  
WM. BEBB, D.D.S.,  
Chicago, Ill.

*Editor Oral Hygiene:*

I suppose you are thinking that I have departed this world without taking advantage of your kind information regarding the oral hygiene work, of some months ago—but not so. Have been working so hard that I didn't have time to write you making promises.

You asked me to let you know what we accomplished, and up till a couple of weeks ago, it was all in futurity. I now have some dope for you. You can judge for yourself whether your instructions and advice have done any good in Arkansas. She is now on the oral hygiene map.

In February the president of our State Association tendered me the honor of chairmanship of the oral hygiene committee. This is the first time the A. S. D. A. has taken any notice of the movement officially.

We had first of all to wake up the majority of the dentists to a realization of the fact that they could come to life. The most of them were indifferent to the oral hygiene movement. It was rather discouraging, as we received very few replies to any of our let-

ters. Dr. Payne, our president, made the principal part of his program oral hygiene. We had with us Dr. Rauh, with whom I got in touch through your mentioning his idea for an exhibit. I thank you very much for that as well as the other ideas you gave me.

Dr. Rauh very kindly ate, drank, and slept oral hygiene with us for the three days of the meeting, and created considerable enthusiasm as you will see later in this book.

Am enclosing you a copy of a so-called report I made as chairman of the oral hygiene committee, which will give you an idea as to our activities. Following the reading of this report, the A. S. D. A. voted to extend the work of the committee this coming year, and gave them absolute authority to do anything they saw fit in advancing the oral hygiene work and created the fund of \$1,000.00 asked for. So the committee is due to get something accomplished this coming year. That isn't so bad for a little society such as ours. We only have about one hundred and fifty members. I wish to give Dr. Rauh credit for the obtaining of this appropriation, for he certainly is in the oral hygiene work. At the time of our meeting, leaving sickness in his home, he came to Little Rock and worked for the cause just the same as if he were care-free.

And by the way, this deserves a paragraph all to itself. That exhibit of Dr. Rauh's is all to the mustard. Man, it is a pippin.

If there is anything in this bunch of dope that you think of sufficient interest to publish, sift it out, sort it out, and go to it. I don't know enough to prepare an article for publication. Maybe before this year is out, I will have increased my literary education to the extent that I can get up something worth while for you.

EARL J. LOGUE, D.D.S.,  
Pine Bluff, Ark.



# EDITORIAL

WM. W. BELCHER,  
D.D.S., EDITOR

186 Alexander Street  
ROCHESTER, N. Y.



## ORAL HYGIENE

does not publish Society Announcements, Obituaries, Personals or Book Reviews. This policy is made necessary by the limited size and wide circulation of the Magazine

## FACTS, FIGURES AND PATRIOTISM

**I**N view of the United States having entered this war of the nations, and the dentist as a factor therein, the following figures, while not accurate, are based on the best estimates obtainable and expressed in round numbers as follows:

	Population	Practicing Dentists	Army	Dentists in Army	Ratio
Germany. . . . .	67,810,000	unknown	8,000,000	1,200	1-6,500
France. . . . .	39,700,000	unknown	3,000,000	1,000	1-3,000
England and Wales. . . . .	36,000,000	5,435	4,000,000	454	1-8,000
Canada. . . . .	8,000,000	2,016	400,000	2,000	1- 200
United States. . . . .	100,000,000	40,000	1,000,000	500	1-2,000

The number of practicing dentists for Canada is according to the latest *Polk's Dental Register*. The number serving the Canadian army at home and over-seas is given as two thousand. This is somewhat misleading as it undoubtedly includes mechanical workmen employed in constructing artificial dentures, etc. Also the Canadian Dental Corps is busy not only with its own army, but serving the English Tommies.

The figures of the United States are based on the proposed army strength of one million, requiring the services of 500 dentists.

Compared with the above figures, we present the total population of the following countries, the number of dentists, and their ratio per thousand:

	Population	Dentists	Ratio
United States. . . . .	100,000,000	40,000	1-2,500
New York State. . . . .	10,086,000	4,777	1-2,000
Canada. . . . .	8,000,000	2,016	1-4,000
England and Wales. . . . .	36,000,000	5,435	1-7,000

It is interesting to compare the dental statistics with the population and the number of medical men. In 1910 there were in the United States 151,132 physicians and surgeons. This would give us one medical practitioner to 600 population; France has one physician to 2,000 population; England one to 1,500 population; Ireland one to 1,900; Germany one to 2,100; Russia one to 7,850.

In the beginning, the European nations looking forward to a brief war, with impulsive disregard of the importance of continuing medical and dental schools, the teachers were drawn from such institutions without thought of the future; the teaching forces were disorganized; undergraduates were hastened through their training and promptly drawn upon for medical and dental relief. The natural result was the prompt limitation of the number of undergraduates and a consequent decrease in the number of available men. In France, it was found necessary to recall dentists from the trenches to the dental schools to meet the overwhelming need of dentists for the army.

Today the civil population of France and England are without medical practitioners to properly attend to the needs of the public hospitals, and the cry for men of medical training is one of the greatest needs and for which dependence is placed upon the United States. It is estimated that we will be able to send abroad twenty thousand physicians without seriously interfering with the general medical practice of this country, provided that well organized plans for the redistribution of medical work are carried into effect. In the light of this experience, the nation can ill afford to undermine the medical or dental colleges of the land.

In regard to the dental situation, five hundred dentists, or even double this number if necessary for the needs of the army, will not make any appreciable difference. Nearly every member of our graduating classes in the dental schools has volunteered for service as dental surgeon. Apparently the salary of \$2,000 per year and findings has its attractions. Who wouldn't be an army officer, provided with an orderly, board, and lodging, and \$2,000 per annum? One thing stands out prominently, and that is, instruction in our dental schools has not been such as to prepare men to best serve as army dental surgeons. The college curriculum under stress has broken down and demonstrated it is ill prepared to furnish men fitted for oral surgery.

In speaking with a dentist of considerable experience in army affairs, he volunteered the information that the recent graduate, just out of college, is not fitted for army duties, except under supervision. He must have practical experience, otherwise he will be a discredit to the dental unit and only serve to make himself and the service ridiculous in the eyes of medical men.

At the Forsyth Dental Infirmary during the past month, a class of five hundred dentists, mostly from New England, have taken a special course in oral and war surgery to fit themselves for service in the U. S. army. It would seem that there are enough dentists in New England who are ready and willing to fill all the positions available. Undoubtedly there will be a place for many of the recent graduates, especially those

who have fitted themselves by special training. The younger men with clear heads and sound physique will prove a most valuable asset. Under the acid test of service and the inevitable strain to which all will be exposed, only the most fit will survive.

It will not be for the best interests of the country to disorganize the teaching forces in our dental schools in filling the dental needs of the army. But, this does not mean that a dentist shall be exempt from conscription. If we have forty thousand practitioners in the United States, perhaps eight thousand of these are within the conscription age. With only five hundred positions to fill, there will be a large number called upon to serve in other capacities than dental.

This idea is expressed in an editorial in the June issue of *The Western Dental Journal*, and to which we give our hearty commendation:

"It is the disposition of the government to exempt those young men from present military service who are in actual preparation for more valuable service to their country, in the not distant future, by way of the professions, especially medicine and dentistry. But the government will make no promise to do this and quite rightly, too, as students, or prospective students, will not be allowed to make of the colleges and universities houses of refuge in which to evade duty in a cowardly manner. The government has the right, and will not relinquish it, to demand service of any citizen regardless of age, sex or occupation.

Schools will not be allowed to advertise exemption to prospectives. They may, however, say that there is a reasonable expectation that bona fide students will not be disturbed. Anyone going further will be liable to severe reprimand, if nothing worse, and may be the means of working great injury, not only to themselves, but to all other institutions of special learning.

"It is desired by the authorities to avoid the mistakes of some of the European countries in permitting the universities and schools to be virtually wiped out.

"The situation is delicate and will require all the patriotic good sense of the various deans of the schools of special learning to handle it."

We could not do better than adopt the action of the Australian dentists, who at a meeting unanimously passed a resolution to the effect that in view of the fact that the government could not employ or conscript in a professional capacity, but a small portion of the practicing dentists, they would therefore volunteer for any services.

*The Australian Journal of Dentistry* commented thusly: "It should be remembered that first we are practitioners, then Australians, and lastly professional men, and that we should first do what is best for the commonwealth, and then for our particular profession."

## MANY THINGS—MOSTLY DENTAL

**I**N spite of war conditions with the absence of many graduates at the front and training camps, the commencement exercises of our universities were held with promptness and dispatch.

We were fortunate in being present at the exercises of the University of Pittsburgh, held in Soldiers Memorial Building, Pittsburgh, Pa., June 13th. Accompanied by four trustees of the Forsyth Infirmary, Drs. Harold DeWitt Cross, Timothy Leary, John F. Dowsley, E. A. Johnson, and Mr. Edward T. P. Graham, architect of the Forsyth Infirmary; Mr. Thomas Alexander Forsyth received the degree of Doctor of Laws. In conferring this degree the university honored itself, Mr. Forsyth and the dental profession.

The evening preceding the commencement exercises, the Alumni Association of the Dental Department gave a banquet at the William Penn Hotel, at which time Dr. H. E. Friesell presided. Among other happy instances was the reunion of the 1907 class, celebrating their tenth anniversary, all of whom were present except nine, one of which was dead. They came from Kansas, Missouri, Illinois, Ohio, and West Virginia. This was the first freshman class under Dean Friesell, and it was a source of much gratification to members of the faculty and the dean that they were sufficiently interested to want to come back and do honor to their *Alma Mater*. The class presented a silver loving cup to Dean Friesell, who responded with fitting remarks. The graduating class of 1917 also presented a similar token to Dr. O. M. Sorber in appreciation of their love and respect. Dr. Sorber is clinical instructor and lecturer in the institution and very popular. The first industrial clinic, established by the Armstrong Cork Company in the city of Pittsburgh, Pa., employed Dr. Sorber to inaugurate its work and he was in charge of the same for a number of years previous to accepting a position with the University Dental School.

Lieutenant-Colonel W. B. Clayton, Ottawa, Canada, the ranking officer of the Canadian Dental Corps, gave a very interesting address. He spoke of the probability of many of the American dentists seeing service abroad and humorously warned them against sea-sickness. The Canadian Dental Corps comprised at the present time ten dental centers in Canada, including Camp Hughes at Brandon, where forty operators were employed, and a grand total of about two thousand at home and over-seas. He hoped that America would avoid some of the mistakes they had made in Canada. At first it was thought sufficient to employ one dentist to one thousand men. They had found that one to five hundred was not enough and looked forward to the future to three dentists to one thousand men. Ninety-eight per cent of the soldiers

required dental attention; fifty per cent immediate attention. They had succeeded in establishing a dental history sheet. This might seem to be a small thing, but unless a thorough examination and recording of the recruits was established, it was impossible at the end of the war to know anything of the original condition of the teeth on entering service. It also prevented many abuses. A soldier might destroy his artificial denture and claim new ones. If they had a record of his receiving dental service, it prevented such abuse. With duplicate models they could supply the necessary dentures and forward to the firing line. Then, again, returned soldiers required much dental attention. If when mustered out they had suffered the loss of their teeth, they were entitled to receive bridge work or any other operation that would restore their mouth to usefulness.

The Dental Research Bureau, established through the representation of Col. Clayton, had been laughed at as an office with lace curtains and an easy time for a few dentists. But even thus early many problems had been solved, and among important ones was the treatment of the so-called "Trench Mouth." Under full army rations and free to exercise, the soldier thrives, but with trench life and rations the physically unfit, the man with decaying teeth and a diseased mouth, goes down like a row of bricks. The "Trench Mouth," a development of these conditions in warfare, was responsible for much suffering resulting in suppurating gums and a loss of all the teeth in a mouth, previously healthy, in six weeks' time in some instances.

The dental service rendered on the European battle front made it the greatest educational school in the world. The soldier sees the improvement in his own condition and has a full appreciation of modern dentistry. When he is returned to civil life, it means more and better dentistry for himself, his wife, and children. Imagine the effect of such a returned soldier, residing in Monmouthshire, West England, with a population of 750,000 and only one dentist!"

On the evening of June 13th, the commencement banquet was held at Hotel Schenley. Many interesting speeches were presented, including that of Charles Holmes Herty, president of the American Chemical Society, upon whom had been conferred the honorary degree, Doctor of Chemistry. He spoke of his address on the commencement program as having been New York City. This was true only for the past six months. He was a native of Georgia, a "Georgian cracker" if you please, having been born and lived in Georgia most of his life. One of the first things to greet him on his arrival in Pittsburgh was a band playing "Marching Through Georgia," and he really enjoyed it. This was good evidence, at least to himself, that he had become a good American. As he was receiving the honorary degree, a Southern soldier honored by a

Northern university in a building dedicated as a memorial to Union soldiers, it came to him that we are all good Americans, one and united, and he thanked God for it.

## "LILIES OF THE MOUTH"

**I**N this issue we present the first of a series of articles from the pen of Dr. John Philip Erwin, entitled, "Lilies of the Mouth," particularly adapted for instruction of our first-grade pupils in the public schools.

We are busy discussing the value of mouth hygiene among ourselves and it would seem that no more evidence is necessary as to the value of a clean mouth in preventing and combating disease. We certainly are raising a lot of dust, but are we getting anywhere? Are we educating the coming generation? What are we doing for the education of our school children who are to be our citizens of tomorrow?

This series of articles is most commendable and will help balance up our campaign of education. Read over the first installment and call your school-teacher-patient's attention to these lectures that she may employ the same in her school work. A word to the wise is sufficient.



*An old owl sat on the bough of an oak,  
The more he heard the less he spoke  
The less he spoke the more he heard,  
Why aren't we all more like this bird?*



## NOTE AND COMMENT

I never argy agin suckcess. When I see a rattlesnake's head sticking out of a hole, I beat off to the left and say to myself, "that hole belongs to that snake."

*Josh Billings*

SENATOR KENYON, in a recent address before Congress, paid his respects to the food speculators of the country as follows:

"One should apologize to highwaymen while terming the food speculators the highwaymen of internal commerce. The highwaymen of the sea are Christian gentlemen compared with them. It takes courage to be a highwayman, but it takes no courage to be a food speculator. These men are the allies of the Kaiser. They rise when the orchestra plays "The Star Spangled Banner," and put an extra flag on their automobiles and then mark up the prices."

DUE to lack of fats and other foods, the general health in Germany is on a decline. Operations for appendicitis, however, are increasingly rare. Decrease of deaths from intestinal and gastric catarrh are reported. Diabetes also shows a decline and seemingly a permanent one.

THE Prince of Wales, England, is said to have the most valuable collection of postage stamps in the world. George H. Worthington, a retired capitalist and railroad director, of Cleveland, Ohio, has just disposed of his private collection at a sum approximating \$1,000,000.

THE total attendance of the recent meeting of the American Medical Association in New York City was 5,147, of which 2,062 were from New York State. About 3,000 members were from New York, Pennsylvania, and New Jersey. This would go to prove that our national gatherings are not representative, being largely made up of delegates from the immediate territory in which the meeting is held.

MR. EMILE KOOS, narcotic inspector and expert of the United State Department of Internal Revenue, in an address to the 40th Annual Convention of the Pennsylvania Pharmaceutical Association, held at Pittsburgh recently, warned his hearers that the United States will suffer a famine in narcotics, unparalleled in history, unless the physicians, surgeons, druggists, dentists, and hospital authorities of the nation unite for an immediate and uncompromising campaign against the illicit traffic in habit-forming drugs that is visiting upon American humanity more appalling horrors than all the wars since the world began."

He commended the Harrison Act: "Nobody appreciates more than I," he said, "that much of the criticism of the Harrison Act by druggists, physicians, and others is born in sincerity, but in spite of all that has been said against it, in spite of the charges that it is impracticable, unjust and non-enforceable, the fact remains that this measure in a little more than two years has freed upwards of two million persons in the United States of the enslaving habit that has wrecked thousands of homes and lives. Before the Harrison Act became effective, about three million people were users of narcotics. Today it has been estimated authoritatively, the total is less than one million."

DR. NELVILLE S. HOFF, Ann Arbor, Mich., made the address to the graduating class of dental hygienists of the Rochester Dental Dispensary. The auditorium of the Dispensary proved unequal to the task of seating all those who desired to see the awarding of diplomas to the thirty-eight graduates.

Dr. Hoff said, in part: "The oral hygienist is not a mere accident or a forced product. The dental profession has been compelled to take this step in spite of strong opposition from the more conservative practitioners, but the attitude at present seems to be one of 'watchful waiting.' Every state is waiting to see what comes from the legislation in this state which legalized the dental hygienist, and should no demoralization of professional interests occur and the plans and ideas of its sponsors materialize satisfactorily, similar legislation will be enacted in other states. The function of the dental hygienist will be established as a permanent factor in dental healing and a long step in preventive dentistry will have been taken."

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DR. EUGENE H. PORTER, former New York State Commissioner of Health, in speaking before the members of the American Institute of Homeopathy at their recent gathering at Rochester, N. Y., spoke right out in meeting. He said, in part: "The most dangerous people at large today are the so-called reformers. Their attempts to make our morals statutory are a menace to individual liberty. Each of these reformers establishes a code of morals for himself and then goes forth to force it upon the world by law. The most dangerous people at large in our land today are the vast herd of so-called social reformers, who are hysterically grinding out laws in their attempts to make our morals statutory. These crazy dreamers have given our state two hundred felonies and six hundred misdemeanors, and are adding to the number year by year. Some of these laws would shock our Puritan grandmothers. A man cannot live in our state without violating at least six laws every day, and between the wild theorists and the half-baked sanitarians, it is growing steadily worse. Public health work has become the last refuge of hypocritical promoters of so-called uplift work, political crooks, and demagogues. Besides these, every village in the country is afflicted with one or more half-baked sanitarians who know they can solve any health problem simply by securing passage of more laws."

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THE Newark, N. J., Free Dental Clinic, operating under a \$10,000 city appropriation and employing eight operators, in the year just passed performed 34,141 operations, and in their report asked for increased appropriations so that more operators may be employed.

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UNDER heading of "A Cheap Anaesthetic," *The Dental Record*, (England,) June, 1917, chronicles the successful efforts of the dentist in charge of the Cambridge dental dispensaries in inducing children to have teeth extracted. Anaesthetics not being available, he put a premium on stoicism and paid a penny to every child who had a tooth out without crying. Extractions became so popular that in rather over a year as much as ten pounds had been paid out in fees to patients. The members of the Oral Hygiene Committee had to meet the expense out of their own private purses. The suggestion that it should in the future be formally charged to the accounts was objected to on the ground of the unsoundness of principal, but the belief that it is the cheapest anaesthetic available, carried the day.

THE East Liverpool, Ohio, *Tribune*, issue of June 15th, in an editorial on the necessity of a free dental dispensary in the public schools, says: "The report of the visiting nurse is convincing of the need of more attention to the teeth. Her figures show that a vast majority of the children who attended the local schools this year had defective teeth. Her's is an important work in the schools for defects of various natures are discovered at a time in the lives of the boys and girls when they should be given attention to prevent much suffering and greater complications in future years."

NICKEL and tin are the only important metals not found in paying quantities among our mineral resources. Tin is a metal that has played an important part in the history of the world. Combined with copper to make bronze, it was doubtless the first metal that man converted to his use. From it he fashioned weapons, tools, and utensils. The United States now uses in the manufacture of tin cans as much tin plate as all other countries together use for all purposes.

There is no substitute for tin. Price has little effect on consumption. If it costs 15 cents a pound, we should perhaps put a thicker coating on our plates and make better solder and babbitt metal, but if it were a dollar a pound, we should still have to use it for nearly every thing for which it is now employed.

AUSTRALIA, for many years suffering a superabundance of Jack rabbits, is now threatened with a plague of mice, so numerous that they have destroyed stores of groceries, boots, shoes, clothing, rubber stamps, seed, and every thing in sight. They are causing the derailment of trucks on the railroads, nibbling the protective covering from the telegraph and telephone wires, and undermining wheat stacks. The cat family seem utterly inadequate to cope with the situation. In many cases they have adopted them as playfellows.

PRINCIPAL James A. Treanor, of the Phillips Brooks Grammar School, Dorchester, Mass., is largely responsible for the graduating class of 1917, as being one with perfect teeth. Sixty-five girls and sixty-three boys recently graduated from that institution with perfect teeth. Early this year, Principal Treanor inaugurated a Clean Teeth Campaign. His slogan was "Perfect Teeth in June." Today he sees the successful fruits of his efforts in a class surpassing all others.

The Forsyth and Tufts dental institutions have performed most of the work. Speaking of his remarkable class, Principal Treanor said, "I was determined that I would produce a class of perfect teeth by constant devotion to this cause. With the able assistance of doctor, nurse, and the dental schools, I have been able to see this thing accomplished. Self-reliance, self-respect, conduct, in fact a child's efficiency is increased one hundred per cent if he has a good set of teeth. We had no tooth brush drills, just plain talks and careful attention to see that our advice was carried out. We have twenty-eight in this class who have finished the last three years in two years. They are known as the Rapid Advancement Class. Good teeth were instrumental, of course. I believe that good teeth should be a qualification for graduation, and I hope that in a short time this will materialize."

THE Good Cheer Club, of San Jose, Calif., are using their best efforts to establish a free dental clinic for worthy children. A number of the local dentists have signified their willingness to assist The Good Cheer Club by giving their services free of charge.

SOLDIERS at the European war front, wearing artificial dentures, find it impossible with the limited toilet facilities to keep them clean and in an antiseptic condition. The use of thymol has been recommended on account of its simplicity and ready means of renewing the solution, as especially suitable for cleansing artificial dentures under the difficult circumstances in which the fighting man is often placed. All that is required is a small lump of thymol placed in a bottle of cold water. After standing a few hours, the solution becomes saturated; it is then a very effective antiseptic, non-corrosive, and harmless if swallowed. A good many "re-fills" are possible before the lump of thymol is used up, by simply filling the bottle with plain water. The U. S. A. has refused to accept soldiers depending on artificial dentures. In case of their acceptance in the future, some such addition to the equipment as suggested, should give the wearer a chance of securing oral comfort and cleanliness.

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THE Joint Committee on Health Problems in Education, representing the American Medical Association and the National Education Association, has prepared a series of fifty-five charts suitable for use in exhibits, normal schools, state conferences on education, and other occasions, and covering almost every phase of school hygiene. Reduced copies of these charts have been printed in pamphlet form and distributed in a small edition. The charts themselves will be reproduced and made available for educational or philanthropic organizations, or institutions desiring material of this sort.

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A CHEMICAL company of Rochester, N. Y., having gone into bankruptcy, their stock was appraised at \$711.50, and when offered in parcels it sold for \$350. There was nothing extraordinary or peculiar about that, but when the auctioneer offered the property in bulk, it was struck off by a purchaser for \$1,800. Right then the referee got his first shock. More to follow. In the afternoon the sale was brought to the referee for confirmation. An attorney presented a bid on the stock from an out-of-town client for \$4,000. The case was re-opened and the chemicals sold for \$5,100. The referee confirmed this sale, but nobody on the outside has as yet been able to ascertain wherein is the "gold mine" that inspired a \$5,100 bid on a stock appraised at only \$711.50. This is an indication of the advance of chemicals since the European war.

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THE *Australian Journal of Dentistry* requests its readers to save empty tooth paste tubes and surplus amalgam mixes, and forward the same to a Patriotic League where the same will be refined and the resultant metals sold in the interests of the Australian soldiers. Pure tin at the present time is quoted at nearly a thousand dollars per ton. Amalgam scrap consists principally of silver and tin, both valuable. If the dentists of America could be induced to forward their scrap amalgam to some central point, the results would undoubtedly be most surprising. We could purchase and outfit a number of dental ambulances with the materials we are daily discarding as of no value.

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THE University of Pittsburgh Dental Department have acquired by purchase the private dental library of Dr. A. P. Lee, Philadelphia. The library of Dr. Lee is particularly rich in original pamphlets and books on anaesthesia. It contains over ninety complete files of American dental journals. Combined with the library of the Pittsburgh school, it will form one of the most complete collection of dental books and pamphlets in existence.

THE allied medical societies of Rochester, N. Y., for a number of years past, have had a sinking fund for the purchase of a Medical Club building. Property worth some \$20,000 was purchased and every ethical medical man was invited to join. Over 300 responded. The dentists of the city were invited to become associate members. This courtesy was appreciated, but it was decided that anything less than active membership would not be for the best interests of the dental profession. Many members of the Medical Club were in favor of receiving the dentists as active members, but in view of the difficulty of combining so many diverse interests in the medical profession, it was deemed wise to wait until more firmly established before taking such action.

The Board of Directors of the Medical Club have now decided to admit dentists to full membership and a large number have placed their applications. By this action the dentist is placed on a par with his medical brethren. It was with this thought in mind that the dentists of Rochester refrained from joining until full privileges were granted them.

It is hoped that their action will serve as a precedent.

WE clip the following from an exchange; it could well be adopted as the dentist's prayer:

"Help me to live so that I can lie down at night with a clear conscience, without a gun under my pillow, and unhaunted by the faces of those to whom I have brought pain.

"Grant, I beseech Thee, that I may earn my meal ticket on the square, and in doing thereof, that I may not stick the gaff where it does not belong.

"Deafen me to the jingle of tainted money and the rustle of unholy skirts.

"Blind me to the faults of the other fellow, but reveal to me mine own.

"Guide me so that each night when I look across the dinner table at my wife, who has been a blessing to me, I will have nothing to conceal.

"Keep me young enough to laugh with my children and to lose myself in their play.

"And then, when comes the smell of flowers and the tread of soft steps and the crushing of hearse's wheels in the gravel out in front of my place, make the ceremony short and the epitaph simple: 'Here lies a man.'"

A RECENT report of a New Jersey municipality states that during the twenty-one school days of December, there were found to be in the public schools 880 cases of toothache for the month. Four hundred sessions were lost on this account. New Jersey pays six cents per school day for each pupil in attendance, while it only reported \$24 for one month and \$240 for the school year. It shows the positive loss of that much per annum. This goes to show that a dental clinic in any municipality would in a comparatively short time pay for itself handsomely, to say nothing of its preventive nature in the detection of oral, nose, throat and eye infections.

"TRUTH and Advertising" is the slogan of the National Association of Advertising Clubs of America. Perhaps no one thing has done as much to shatter the confidence of the laity in advertising as the patent medicine fakir. It is interesting to note that forced to abandon the public prints, they turn to the dental field as a duck to water. The advertised virtues of some of these drugged dentifrices would lead one to believe that the age of romances and miracles is still with us.



HEARD IT AFORE

# FUNNIES

We want good clean humor for this page and are willing to pay for it. Send me the story that appeals to you as "funny" and if I can use it, you will receive a check on publication—Address EDITOR, 186 Alexander Street, Rochester, N. Y. :- :- :-



THAT'S A GOODUN

A DISTINGUISHED surgeon was momentarily dazed recently while making his rounds through a hospital by a wounded soldier who inquired querulously: "Say, doctor, when one doctor doctors another doctor, does the doctor doing the doctoring, doctor the other doctor like the doctor wants to be doctored, or does the doctor doing the doctoring doctor the other doctor like the doctor doing the doctoring wants to doctor him?"  
—J. M. R., Enid, Okla.

"Now, Rastus," said the Judge, "tell me just exactly where the automobile hit you."

"Jedge, was the earnest reply, "ef Ah'd be'n a-carryin' a red lamp it sho' would a' be'n busted to a thousand pieces."

There was a man who fancied that by driving good and fast He'd get his car across the track before the train came past; He'd miss the engine by an inch, and make the train-hands sore, There was a man who fancied this; there isn't any more.

"How much do you get for hoeing those potatoes, my boy?" asked the gentleman of a rather sullen looking lad, who, in a sort of hit or miss fashion, was attacking the weeds that threatened to take possession of the patch. The boy stopped, spat on his hands, gripped his hoe handle tightly, and as he resumed work, briefly replied:

"Nothin' if I do, and hell if I don't."—J. M. R., Enid, Okla.

A SCOTCH mother who was answering a letter received from her son Jamie, written from the trenches "somewhere in France" said to the boys father: "Hae ye anything to send the laddie, Jock?" And Jock, after scratching his head, replied, "Aye, tell am if he sees that German that usto keep the public house at the partin' o' the roads, an he gets anywhere near him to be sure an draw a gude bead an him an mak a gude job ov'm for the last time I was doon at his place he gae me a bad saxpence."

A DENTIST upon completion of some amalgam fillings for a parson friend, surveyed his work with approval and remarked: "There you are, parson; those will stay until they melt out."—J. H. R., Chicago, Ill.

It was their first born and during the christening the baby was as quiet as a little lamb. Remarking on the fact, the minister said to the mother:

"I must congratulate you on the little one's behavior. I never before christened a baby that behaved so well as yours."

"No wonder," the young mother replied complacently. "His father and I, with a pail of water, have been practicing christening him for the past two weeks."—S. R., Ebenezer, S. C.

A GENTLEMAN passing a vacant lot where two colored teams were playing ball, asked the score. "Thirty fo' to nothing," replied one of the darkeys.

"My goodness! You are getting a beating, ain't you?"

"Oh, I dunno, our side ain't been to bat yet."—P. B., Phila., Pa.